Comprehensive® VIDEO GROUP The Interface Place®

USER MANUAL

Models:

CDA-V31, ***1:3 Audio-Stereo / Video DA***

CDA-V50, ***1:5 High Resolution Video DA***

For maximum results, use Comprehensive Brand Premium High Resolution cables and connectors.

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1 Introduction

Congratulations on purchasing your **CDA-V31** *1:3 Audio-Stereo / Video DA* and/or **CDA-V50** *1:5 High Resolution Video DA*, which are ideal for duplication and other studio applications, as well as professional presentation and display systems. The package includes the following items:

- **CDA-V31** or **CDA-V50**
- Power adapter (12V DC input) and this user manual

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual

3 Overview

The following sections describe the:

- **CDA-V31** *1:3 Audio-Stereo / Video DA*, which accepts one audio input and one video input, provides correct buffering and isolation and distributes these signals to three identical audio and video outputs (see section 4.1)
- **CDA-V50** *1:5 High Resolution Video DA*, which accepts one video input and distributes it to five identical outputs (see section 4.2)

To achieve the best performance:

- Connect only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise-levels (often associated with low quality cables)
- Avoid interference from neighboring electrical appliances and position your machines away from moisture, excessive sunlight and dust

Caution – No operator-serviceable parts inside unit.

Warning – Use only the input power wall adapter that is provided with this unit.

Warning – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

4 Your CDA-V31 and CDA-V50

This section describes the:

- **CDA-V31** *1:3 Audio-Stereo / Video DA*, see section 4.1
- **CDA-V50** *1:5 High Resolution Video DA*, see section 4.2

4.1 Your CDA-V31 1:3 Audio-Stereo / Video DA

The **CDA-V31** is a compact distribution amplifier for composite video and unbalanced stereo audio signals. It will take one input, provide correct buffering and isolation, and distribute the signal to three identical outputs. The **CDA-V31**:

- Has a high video bandwidth of 415MHz to ensure transparent operation even in the most critical applications
- Uses RCA connectors for composite video, and 3.5mm mini jack connectors for the unbalanced stereo audio
- Includes audio and video level (gain) controls

Figure 1 and Table 1 define the **CDA-V31** *1:3 Audio-Stereo / Video DA*:

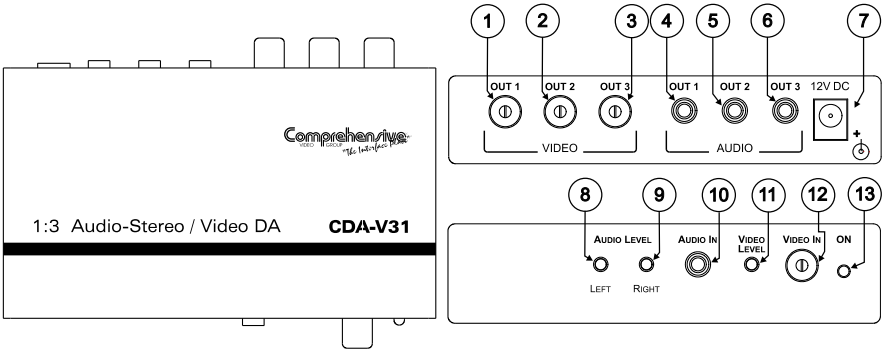

Figure 1: CDA-V31 Audio-Stereo / Video DA

Table 1: Features and Functions of the CDA-V31 Audio-Stereo / Video DA

#	Feature		Function
1	*VIDEO*	*OUT 1* RCA Connector	Connects to the video acceptor 1
2		*OUT 2* RCA Connector	Connects to the video acceptor 2
3		*OUT 3* RCA Connector	Connects to the video acceptor 3
4	*AUDIO*	*OUT 1* Mini Phone Connector	Connects to the unbalanced stereo audio acceptor 1
5		*OUT 2* Mini Phone Connector	Connects to the unbalanced stereo audio acceptor 2
6		*OUT 3* Mini Phone Connector	Connects to the unbalanced stereo audio acceptor 3
7	*12V DC*		+12V DC connector for powering the unit
8	*AUDIO LEVEL*	*LEFT* Trimmer[1]	Adjusts the left channel audio gain
9		*RIGHT* Trimmer[1]	Adjusts the right channel audio gain
10	*AUDIO IN* Mini Phone Connector		Connects to the unbalanced stereo audio source
11	*VIDEO LEVEL* Trimmer		Adjusts the gain of the video outputs
12	*VIDEO IN* RCA Connector		Connects to the video source
13	*ON* LED		Illuminates when the machine is powered

4.2 Your CDA-V50 1:5 High Resolution Video DA

The **CDA-V50** is a high performance distribution amplifier for composite video signals on BNC connectors. It accepts one input, provides correct buffering and isolation and distributes the signal to five identical outputs.

The **CDA-V50**:

- Has a bandwidth of 400MHz to ensure transparent operation even in the most critical applications
- Includes video level (Gain) control

Figure 2 and Table 2 define the CDA-V50 1:5 High Resolution Video DA:

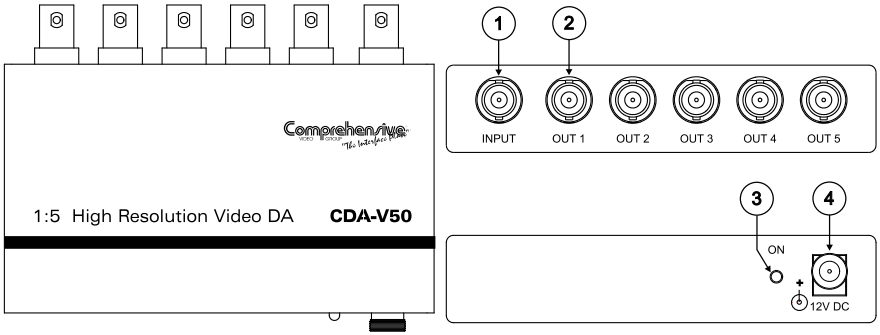

Figure 2: CDA-V50 1:5 High Resolution Video DA

1 Insert a screwdriver into the small hole and carefully rotate it to adjust the audio level

Table 2: Features and Functions of the CDA-V50 1:5 High Resolution Video DA

#	Feature	Function
1	*INPUT* BNC Connector	Connects to the composite video source
2	*OUT* BNC Connectors	Connect to the composite video acceptor (from 1 to 5)
3	*ON* LED	Illuminates when the machine is powered
4	*12V DC*	+12V DC connector for powering the unit

Figure 3 and Table 3 define the **CDA-V50** underside panel:

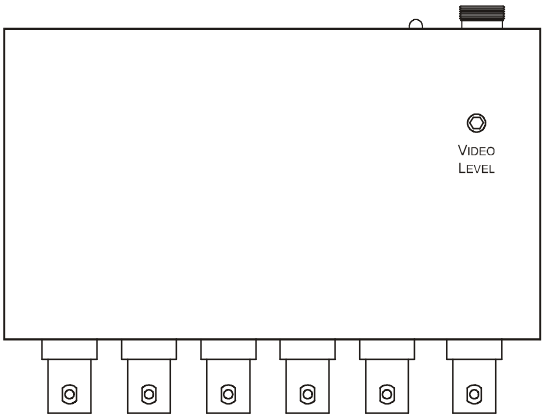

Figure 3: CDA-V50 1:5 High Resolution Video DA Underside Panel

Table 3: Features and Functions of the CDA-V50 Underside Panel

Feature	Function
VIDEO LEVEL Trimmer[1]	Controls the gain of the video outputs

5 Connecting the CDA-V31 and CDA-V50

This section describes how to connect the:

- **CDA-V31** *1:3 Audio-Stereo / Video DA*, see section 5.1
- **CDA-V50** *1:5 High Resolution Video DA*, see section 5.2

1 Insert a screwdriver into the small hole and carefully rotate it to adjust the audio level

5.1 Connecting the CDA-V31 1:3 Audio-Stereo / Video DA

To connect the **CDA-V31** *1:3 Audio-Stereo / Video DA*, as the example in Figure 4 illustrates, connect the following[1]:

1. Connect a composite video source (for example, a video player) to the video and audio input connectors.
2. Connect the video and audio output connectors to up to 3 composite video acceptors (for example, video recorders).
3. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity (not illustrated in Figure 4).
4. If required, adjust the audio level and video level.

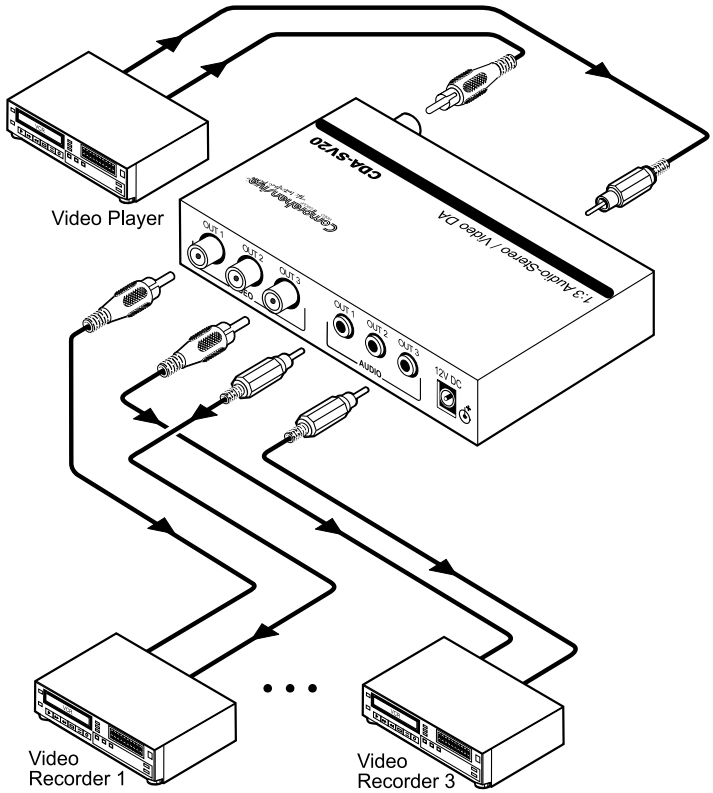

Figure 4: Connecting the CDA-V31 1:3 Audio-Stereo / Video DA

1 Switch OFF the power on each device before connecting it to your CDA-V31. After connecting your CDA-V31, switch on its power and then switch on the power on each device

5.2 Connecting the CDA-V50 1:5 High Resolution Video DA

To connect the **CDA-V50** *1:5 High Resolution Video DA*, as the example in Figure 5 illustrates, connect the following[1]:

1. Connect a composite video source (for example, a composite video player) to the INPUT BNC connector.
2. Connect the video output connectors to up to 5 composite video acceptors (for example, composite video recorders).
3. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity (not illustrated Figure 5).
4. If required, adjust the video level.

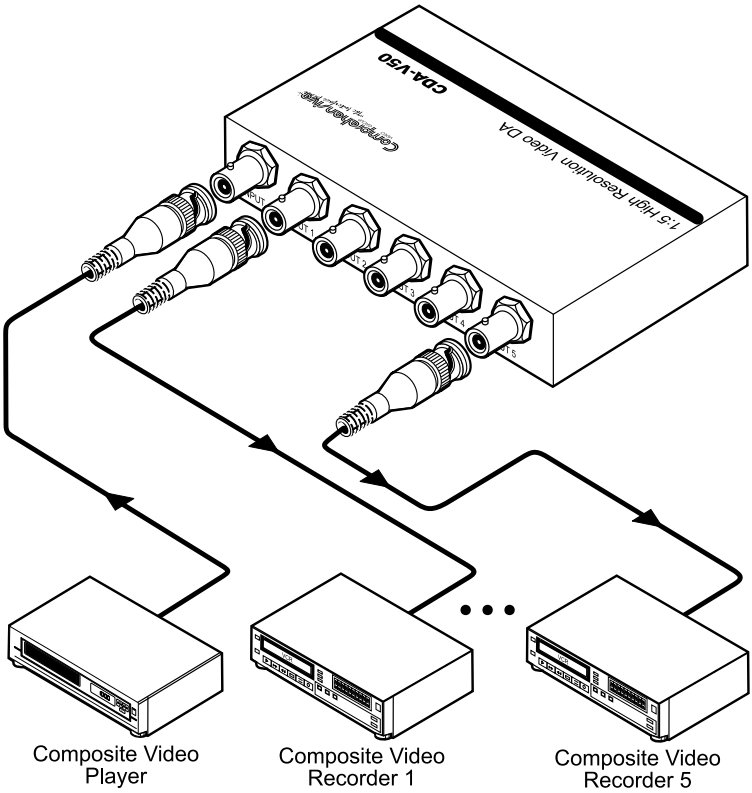

Figure 5: Connecting the CDA-V50 1:5 High Resolution Video DA

1 Switch OFF the power on each device before connecting it to your CDA-SV50. After connecting your CDA-SV50, switch on its power and then switch on the power on each device

6 Technical Specifications

This section defines the technical specifications[1] for the:

- **CDA-V31** *1:3 Audio-Stereo / Video DA* (see Table 4)
- **CDA-V50** *1:5 High Resolution Video DA* (see Table 5)

Table 4: Technical Specifications of the CDA-V31 1:3 Audio-Stereo / Video DA

INPUT:	1 composite video, 1Vpp/75Ω on an RCA connector 1 audio stereo, 1Vpp/33 kΩ on 3.5-mm mini phone connector	
OUTPUTS:	3 composite video, 1Vpp/75Ω on RCA connectors 3 audio stereo, 1Vpp/50Ω on 3.5mm mini phone connectors	
MAX. OUTPUT LEVEL:	VIDEO: 2Vpp	AUDIO: 5Vpp
VIDEO BANDWIDTH (-3dB):	415MHz	
AUDIO BANDWIDTH (-3dB):	>100kHz	
DIFF. GAIN:	0.05%	
DIFF. PHASE:	0.03 Deg	
K-FACTOR:	<0.05%	
VIDEO S/N RATIO:	73dB	
AUDIO S/N RATIO:	84dB Unweighted	
CROSSTALK:	-70dB @20kHz	
CONTROLS:	Video level: -2.6dB to 5.9dB; audio level: 0dB to 5.9dB	
COUPLING:	VIDEO: AC	AUDIO: AC
AUDIO THD+NOISE:	0.01%	
AUDIO 2nd HARMONIC:	0.003%	
POWER SOURCE:	12 VDC, 50mA	
DIMENSIONS:	12.1cm x 7.18cm x 2.42cm (4.76” x 2.83” x 0.95”, W, D, H.)	
WEIGHT:	0.28kg. (0.62 lbs.) approx.	
ACCESSORIES:	Power supply, mounting bracket	

Table 5: Technical Specifications of the CDA-V50 1:5 High Resolution Video DA

INPUT:	1 video, 1Vpp/75Ω on a BNC connector
OUTPUTS:	5 video, 1Vpp/75Ω on BNC connectors
MAX. VIDEO OUTPUT:	1.5Vpp
VIDEO BANDWIDTH (-3dB):	400MHz
DIFF. GAIN:	0.05%
DIFF. PHASE:	0.09 Deg
K-FACTOR:	<0.05%
S/N RATIO:	72dB
CONTROL:	Level: -2dB to +5.6dB
COUPLING:	AC
POWER SOURCE:	12 VDC, 35mA
DIMENSIONS:	12.1cm x 7.18cm x 2.42cm (4.76” x 2.83” x 0.95”, W, D, H.)
WEIGHT:	0.3kg. (0.6 lbs.) approx.
ACCESSORIES:	Power supply, mounting bracket

1 Specifications are subject to change without notice